



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,456	08/20/2003	Laura J. Ball	SP01-192A	5937
22928	7590	03/23/2004	EXAMINER	
CORNING INCORPORATED			LOPEZ, CARLOS N	
SP-TI-3-1			ART UNIT	PAPER NUMBER
CORNING, NY 14831			1731	

DATE MAILED: 03/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/644,456	Applicant(s) BALL ET AL.	
	Examiner Carlos Lopez	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10,12,13 and 20-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10,12,13 and 20-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fleming, Jr. et al (US 4,011,006) in view of Gouskov et al (US 6,253,580). Fleming discloses a method of making glass suitable for incorporation in devices such as lenses and optical transmission lines (Col.1, lines 10-13). Fleming's method, as best shown in figure 3, comprises passing silica powder into a plasma to thus produce and deposit silica particles onto a rotating horizontal depositing surface. Fleming is silent depositing and consolidating the particles at the same time. However, Gouskov teaches that depositing and consolidating the silica into one single step is cheaper than a multi-stage process that requires a separate deposition and consolidation steps (Col. 3 lines 15-17 and Col. 6, lines 61-65). Hence, at the time the invention was made it would have been obvious to a person of ordinary skill in the art to have deposited and consolidate the particles of Fleming at the same time as taught by Gouskov because its less expensive than a multi-stage process that requires separate deposition and consolidation steps.

As for claim 2, Fleming's powder size ranges from mesh size 20 to 100, which corresponds to a particle size range of 149mm to 841 micrometers.

As for claims 3-4, Fleming adds a Germanium or Borate dopant (Col. 3, lines 52-54).

Art Unit: 1731

In regards to claims 5-6 and 9, while Fleming adds germanium and borate dopants, it is well known in the art as shown by US 654168 that dopants such as F₂, CF₄, and SiF₄ are conventionally added to the silica for reducing optical damage to the glass caused by infrared light.

As for claim 10, silica glass having no OH content is desired in order to avoid interference of the transmitted light passing there through. Thus would be obvious to a person of ordinary skill in the art to have made the silica preform in an enclosure having a low water content.

Claims 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fleming, Jr. et al (US 4,011,006) in view of Gouskov et al (US 6,253,580) as applied to claim 1 above. Fleming and Gouskov use synthetic silica quartz but are silent disclosing using natural silica quartz. However, Examiner takes official notice that using synthetic silica glass would have been obvious to a person of ordinary skill in the art as shown by Drouart et al (US 6,477,864) which teaches that either natural or synthetic silica may be used as silica sources for the production of glass performs.

Claims 20-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fleming, Jr. et al (US 4,011,006) in view of Gouskov et al (US 6,253,580) in view of Examiner's Official Notice. Fleming discloses a method of making glass suitable for incorporation in devices such as lenses and optical transmission lines (Col.1, lines 10-13). Fleming's method, as best shown in figure 3, comprises passing silica powder into a plasma to thus produce and deposit silica particles onto a rotating horizontal depositing surface. Fleming is silent depositing and consolidating the particles at the

Art Unit: 1731

same time. However, Gouskov teaches that depositing and consolidating the silica into one single step is cheaper than a multi-stage process that requires a separate deposition and consolidation steps (Col. 3 lines 15-17 and Col. 6, lines 61-65). Hence, at the time the invention was made it would have been obvious to a person of ordinary skill in the art to have deposited and consolidate the particles of Fleming at the same time as taught by Gouskov because its less expensive than a multi-stage process that requires separate deposition and consolidation steps. Additionally, in view of Fleming, which teaches that the disclosed method can be used to make glass for incorporation within devices, it would have thus been obvious to a person of ordinary skill in the art, at the time the invention was made, to have used Fleming's silica glass as an optical device such as a photomask. The forming of a photomask would thus require cutting the glass from the preform into blanks and finishing them. Examiner takes official notice that said claimed steps for forming a photomask are well known in the art as shown by US 2002/0090518A1 and/or US 6,541,168 as required steps for forming a photomask.

In regards to claims 24-25 and 28, while Fleming adds germanium and borate dopants, it is well known in the art as shown by US 654168 that dopants such as F₂, CF₄, and SiF₄ are conventionally added to the silica for reducing optical damage to the glass caused by infrared light.

As for claim 29, silica glass having no OH content is desired in order to avoid interference of the transmitted light passing there through. Thus would be obvious to a person of ordinary skill in the art to have made the silica preform in an enclosure having a low water content.

Art Unit: 1731


Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References A-F in PTO-892 have been cited to show the state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is 571.272.1193. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571.272.1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


STEVEN P. GRIFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

CL